

REMARKS

Claims 1-26 are pending. All pending claims stand rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Pat. No. 4,842,716 to Kaplan, et. al. (hereinafter “Kaplan”) in view of U.S. Pat. No. 5,632,865 to Stein, et. al. (hereinafter “Stein”). Applicant hereby amends independent claims 1 and 19 and submits that the amended claims do not introduce new matter.

Applicant further submits that all pending claims are in condition for allowance. With respect to amended independent claim 1, neither Kaplan nor Stein teaches or suggests contacting a heat transfer surface with a “heat-treated phosphorous-sulfur compound exhibiting a ^{31}P NMR peak between about 93 and about 97 ppm.” Although Stein employs “various types of heating means,” Stein does not teach or suggest how to heat-treat the compounds of Kaplan to arrive at a phosphorous-sulfur compound exhibiting the above-referenced NMR peak for use in contacting a heat transfer surface. With respect to amended independent claim 19, neither Kaplan nor Stein teaches or suggests “heating a phosphorous-sulfur compound at a temperature of from about 160°C to 500°C for about 5 minutes to about 3 hours.” In fact, Stein does not disclose any heating temperatures or heating times at all. As previously mentioned, Stein does not circumscribe the extent of its heat treatment.

In addition, the originally filed specification of the instant application demonstrates that the Applicant’s invention, as recited by amended independent claims 1 and 19, exhibits unexpected results relative to the closest prior art of record (*i.e.*, Kaplan). As Example 7 of the instant specification (pp. 17-18) makes clear, “a marginal reduction in coke accumulation is seen with the s,s,s,-tributyl phosphorothioate treatment compared to the blank, while a significant ^{no example} reduction in both coke accumulation and coking rate is observed with the thermally treated s,s,s-tributyl phosphorothioate.” It is respectfully submitted that this unexpected result strongly supports a finding of non-obviousness.

Finally, should the Patent Office maintain its obviousness rejection of the amended independent claims, Applicant respectfully submits that reliance on an “obvious to try” standard will be necessary. That is, neither Kaplan nor Stein give any indication of the heating parameters that would allow one of ordinary skill to arrive at the instantly claimed invention.

In view of the foregoing, Applicants respectfully submit that independent claims 1 and 19 are allowable over the above-cited references. Applicants further submit that dependent claims

2-18 and 20-26 are also allowable over the prior art as depending from allowable base independent claims.

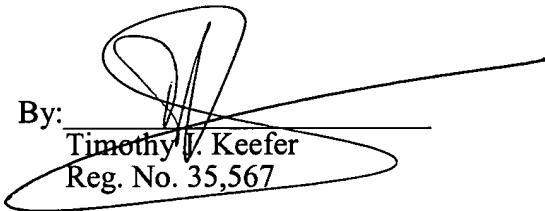
CONCLUSION

Applicant respectfully requests entry of this Amendment and allowance of all pending claims in due course. In accordance with 37 C.F.R. § 1.111, the requisite filing fee for the Request for Continued Examination is submitted herewith. Please deduct any deficiency from, or deposit any overpayment to, the deposit account of Wildman, Harrold, Allen & Dixon, No. 23-2126.

Respectfully submitted,

July 18, 2003

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CERTIFICATE OF MAILING

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to the Commissioner for Patents, P.O. Box 1450 Alexandria, VA 22313-1450.

Mary Anne Everett
7/18/03